

CLAIMS

1. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, said system comprising:

an event retriever, said event retriever generating an event pair which comprises a target value and an actual value associated with said schedule of services;

an event observer, said event observer receiving said event pairs from said event retriever, calculating the difference between said actual and target value, and based on one or more rules from a first set of rules, identifying and notifying a window of opportunity detector regarding potential windows of opportunities;

said window of opportunity detector, which receives said potential windows opportunities, detects, based on one or more rules from a set of second rules, if a window of opportunity exists, and if so, matches said detected windows of opportunities with service providers for the purposes of enhancing sales.

2. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said event retriever further utilizes service provider schema information stored in a service provider schema database to generate said event pairs.

1 3. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 2, wherein said service
3 provider schema is a document type definition (DTD).

1 4. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 2, wherein said service
3 provider schema is an XML schema.

1 5. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said one or
3 more rules from said set of first rules is a threshold rule, and said potential windows of
4 opportunities are identified based on comparing said difference between said actual and
5 target value against said threshold.

1 6. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said one or
3 more rules from said set of second rules are provided externally by said service providers.

1 7. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said system
3 further accesses a subscription management service wherein said events and schedules are
4 defined for tracking.

1 8. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said one
3 more rules of said set of first and one or more rules of a set of second rules are stored in a
4 rule database.

1 9. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said events
3 are Internet Calendaring and Scheduling Core Object Specification (iCalendar) events.

1 10. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said event
3 retriever further comprises:

4 an enhanced gatherer, which dynamically receives information from service providers over
5 a network using simulated user interaction, and

6 a pattern matcher, which extracts said event pair from said received information based on
7 matching the structure of said received information with that of a stored schema of said
8 service providers.

1 11. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 10, wherein said
3 enhanced gatherer is a web crawler.

1 12. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 10, wherein said
3 network comprises any of the following: local area networks (LANs), wide area networks
4 (WANs), wireless networks, or the Internet.

1 13. A system for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 1, wherein said
3 received event pairs are extracted from a markup language form.

1 14. An e-commerce method for enhancing sales to potential customers, one or more steps of said
2 method performed over a network, said method comprising:
3 electronically acquiring service schedules of one or more service providers;
4 detecting one or more thresholds of opportunity for sales to said potential
5 customers based on periods of time of customer inactivity within said service schedules;
6 providing notification of said opportunity to said service provider, and
7 wherein said service providers offer sales to said potential customers during said period
8 of inactivity.

1 15. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 14, wherein said step
3 of detecting a window of opportunity comprises of:
4 detecting an unexpected change in said schedule;
5 checking if people are blocked due to said unexpected change in schedule;
6 checking if service providers benefit from said blocked scenario, and
7 wherein said window of opportunity is detected if said service providers are going to benefit
8 from said blocked scenario.

1 16. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 15, wherein said step
3 of detecting an unexpected change in said schedule further comprises:
4 simulating user interaction via data gathering software to request data from service providers
5 via a network;
6 receiving information from said service providers via said network;
7 accessing a service provider schema database and reading schema regarding said service
8 providers;
9 matching said received information with said read schema associated with said service
10 providers, and
11 extracting data events, comprising actual and target data, based on said matching step.

1 17. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 16, wherein said
3 network comprises any of the following: local area networks (LANs), wide area networks
4 (WANs), wireless networks, or the Internet.

1 18. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 15, wherein said data
3 gathering software comprises data mining software.

1 19. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of service, as per claim 15, wherein said
3 extracted data events are iCalendar events.

1 20. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, wherein said method
3 comprising:
4 extracting standardized event data comprising an actual event value and a target value, from
5 said travel service provider via a network;
6 comparing, based on one or more rules from a set of first rules, the difference of said actual
7 value and target value against a threshold value;
8 detecting a window of opportunity based on one or more rules from a set of second rules,
9 and
10 distributing said window of opportunity information to said service providers for enhancing
11 said service provider's sales, if said detection of window of opportunity occurs.

1 21. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 20, wherein said
3 travel services comprises any of: airlines, trains, or buses.

1 22. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 20, wherein said
3 event data is arrival or departure times and locations associated with said specific airline.

1 23. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 20, wherein said
3 one or more rules from said set of first rules is based on said difference of actual and target
4 values being above or below a predetermined threshold.

1 24. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 20, wherein said
3 one or more rules from said set of second rules is based on rules provided by service
4 providers.

1 25. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 24, wherein said
3 rules provided by service providers are stored in a rules database.

1 26. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 20, wherein said
3 step of extracting standardized event data further comprises:
4 accessing said travel service provider's webpage over a network;
5 posting data regarding a specific travel provider in said webpage and querying for
6 information regarding schedule of said specific travel service;
7 receiving a web document from said travel service provider regarding said schedule of said
8 specific travel provider;
9 accessing a service provider schema database and reading a schema associated with said
10 travel service provider;
11 matching said received web document with said read schema and extracting event data, and
12 standardizing said extracted event data.

1 27. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 24, wherein said
3 network comprises any of the following: local area networks (LANs), wide area networks
4 (WANs), wireless networks, or the Internet.

1 28. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 step of posting data is accomplished using a HTTP POST command.

1 29. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 web document is of any of following formats: HTML, SGML, or XML.

1 30. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 read schema is an XML schema.

1 31. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 read schema is a DTD.

1 32. A method for enhancing sales for service providers by utilizing an opportunistic approach
2 based on an unexpected change in a schedule of travel services, as per claim 26, wherein said
3 step of standardizing involves standardizing based on iCalendar standard.

1 33. An article of manufacture comprising a computer user medium having computer readable
2 code embodied therein which provides for a e-commerce method for enhancing sales to
3 potential customers, said article comprising:
4 computer readable code electronically acquiring service schedules of one or more service
5 providers;
6 computer readable code detecting one or more thresholds of opportunity for sales to said
7 potential customers based on periods of time of customer inactivity within said service
8 schedules;
9 computer readable code providing notification of said opportunity to said service provider,
10 and wherein said service providers offer sales to said potential customers during said period
11 of inactivity.